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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/511,330	02/23/2000	Eric Andre	9320.99US01	4708

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EXAMINER

LEI, TSULEUN R

ART UNIT PAPER NUMBER

2684

DATE MAILED: 09/05/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/511,330

Applicant(s)

ANDRE ET AL.

Examiner

T. Richard Lei

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5, 7. 6) ☐ Other: \_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Camp, Jr. et al. (U.S. Patent 6,097,974) in view of Vlahos, et al. (5,926,751).

Regarding Claim 1, Camp teaches a dual mode radio frequency reception device of the type enabling reception firstly of multi-carrier broadcast signals in a first frequency band, and secondly radio positioning signals in a second frequency band (Col.3, Lines 3-5), characterized in that it comprises a single preprocessing module (Fig.9, No. 910-915, 830 and 832), particularly including a pass-band antenna filter in which the pass-band includes at least the said first and second frequency

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bands (Col.6, Lines 58-60, a shared filter with variable or switched element). Camp does not teach that the signal path will branch out from this point to separate IF sections for processing. Vlahos, however, discloses such arrangement in that the received RF signals of different bands are separately processed (Vlahos, Fig.2, No. 214/216 and 240/242). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Camp and Vlahos to simplify the matching requirement of the mixer input. Camp as modified by Vlahos teach that the filtered RF signal output firstly to a first processing system for the said multi-carrier broadcast signals, and secondly to a second system for processing the said radio positioning signals (Vlahos, Fig.2, No. 214/216 and 240/242).

Regarding Claim 2, Camp and Vlahos teach a device according to claim 1, characterized in that the said single preprocessing module also comprises at least one of the elements belonging to the group comprising: a first low noise amplifier (Camp, Fig.9, No. 915); a first transposition stage to a first intermediate frequency, by multiplying by a first transposition frequency (Camp Fig.9, No. 830 and 832); a second amplifier (Camp Fig.9, No. 830, the mixer contains amplification).

Regarding Claim 6, Camp and Vlahos teach a device according to claim 1, characterized in that it also comprises a frequency

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synthesizer (Vlahos, Fig.1, No. 125) outputting into the said first and second processing systems, capable of generating at least two frequencies belonging to the group comprising: the said first transposition frequency (Camp, Fig.9, No. 832); the said digital conversion frequency (Vlahos, Fig.2, No. 234); a second transposition frequency used by a second transposition stage to a second intermediate frequency included in the said first processing system (Vlahos, Fig.2, No. 226); a second transposition frequency used by a second transposition stage to a second intermediate frequency included in the said second processing system (Vlahos, Fig.2, No. 250).

Regarding Claim 9, Camp and Vlahos teach a portable multimedia receiver, characterized in that it comprises a dual mode radio frequency reception device according to claim 1 (Camp, Col.3, Lines 3-5).

3. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Camp and Vlahos and further in view of Leung et al. (U.S. Patent 5,719,573).

Regarding Claim 3, Camp teaches a device according to claim 1. But Camp does not teach the A/D converter circuit in the device. Leung, however, teaches the A/D circuit (Leung, Col.1, Lines 7-12). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine

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the teaching of Camp and Leung to better explain the function of each component circuit in the device. Camp as modified by Leung teach a device according to claim 1, characterized in that the said first processing system comprises first digitization means and the said second reception system comprises second digitization means, the said first and second digitization means being controlled by the same analog-digital conversion frequency (Camp, Fig.9 and Leung, Col.1, Lines 7-12).

Regarding Claim 4, Camp and Vlahos as modified by Leung teach a device according to claim 3, characterized in that the said first digitization means include a delta-sigma pass-band modulator (Leung, Col.1, Lines 8-9).

Regarding Claim 5, Camp and Vlahos as modified by Leung teach a device according to claims 3, characterized in that the said second digitization means include a "1-bit" quantifier (Leung, Col.4, Lines 4-7).

4. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Camp in view of Oyagi (U.S. Patent 6,292,232).

Regarding Claim 7, Camp teaches a device according to claim 1, characterized in that the said first processing system is used for the reception of communication RF signals and in that the second processing system is used for the reception of GPS signals

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(Fig.9). Camp does not teach that the communication RF signal also includes the DAB signal. Oyagi, however, teaches a device for receiving a plurality of high-frequency RF signals of different bandwidth, including the DAB signal (Oyagi, Col.1, Lines 6-8 and 31-35). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Camp and Oyagi to include the GPS circuit in all RF communications device to take advantage of the service provided, free of charge, for location and timing information to the users.

Regarding Claim 8, Camp and Oyagi teach a device according to claim 1, characterized in that the said first frequency band is between about 1452.192 MHz and 1491.392 MHz (Oyagi, Col.1, Lines 31-35), and in that the said second frequency band is between about 1574.42 MHz and 1576.42 MHz (Camp, Col.3, Lines 3-5).

### ***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to T. Richard Lei whose telephone number is 703-305-4828. The examiner can normally be reached on 8:30 to 5:00.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dan Hunter can be reached on 703-308-6732. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-5403 for regular communications and 703-308-5403 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

TRL

TRL  
August 26, 2002

  
THANH CONG LE  
PRIMARY EXAMINER  
